[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0332; Directorate Identifier 2011-NM-130-AD; Amendment 39-17155; AD 2012-16-08]

RIN 2120-AA64

Airworthiness Directives; BAE SYSTEMS (OPERATIONS) LIMITED Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain BAE SYSTEMS (OPERATIONS) LIMITED Model BAe 146 and Avro 146-RJ series airplanes. This AD was prompted by reports of cracking and surface anomalies of the fuselage skin at the water trap/air dryer unit of the forward discharge valve due to corrosion. This AD requires repetitive detailed inspections for bulging, surface anomalies, and cracking of the fuselage skin adjacent to the discharge valves, repair if necessary, and application of additional sealant in the affected area if necessary. We are issuing this AD to detect and correct bulging, surface anomalies, and cracking that could propagate towards the forward discharge valve outlet, which could result in the failure of the fuselage skin, leading to a possible sudden loss of cabin pressure.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC. 98057-3356.

FOR FURTHER INFORMATION CONTACT: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue S.W., Renton, Washington 98057-3356; phone 425-227-1175; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on April 5, 2012 (77 FR 20572). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

> An operator has reported the cracking and surface anomalies (bulges and/or dents) of the fuselage skin at the water trap/air drier unit of the forward discharge valve located between Frames 22 and 23 and between stringers 22 and 23.
>
> Further investigation established that these surface anomalies (bulges and/or dents) were due to corrosion beneath the water trap/air drier unit that has resulted in cracking of the fuselage skin. A crack at the subject location could propagate towards the forward discharge

> valve outlet and result in the failure of the fuselage skin leading to a possible sudden loss of cabin pressure.
>
> For the reasons described above, this [EASA] AD mandates an initial and repetitive [detailed] inspections [for bulging, surface anomalies, and cracking] of the fuselage skin adjacent to the front and rear discharge valves, the accomplishment of the associated correctives actions [repair] if applicable and the application of an additional sealant in the affected area.

You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (77 FR 20572, April 5, 2012) or on the determination of the cost to the public.

Explanation of Change Made to this AD

We have revised one of the part numbers contained in paragraph (h) of this AD from PR1764-2 to PR1764B-2 due to a typographic error; this change does not change the intent of that paragraph.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD with the change described previously – and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (77 FR 20572, April 5, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 20572, April 5, 2012).

Costs of Compliance

We estimate that this AD will affect 1 product of U.S. registry. We also estimate that it will take about 8 work-hours per product to comply with the basic requirements of this AD. The average labor rate is $85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be $680 or $680 per product. We have no way of determining the number of products that may need these actions.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM (77 FR 20572, April 5, 2012), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

2012-16-08 BAE SYSTEMS (OPERATIONS) LIMITED: Amendment 39-17155. Docket No. FAA-2012-0332; Directorate Identifier 2011-NM-130-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to BAE SYSTEMS (OPERATIONS) LIMITED Model BAe 146-100A, -200A, and -300A airplanes, and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A airplanes, certificated in any category; all models, and all serial numbers except airplanes that have incorporated auto-pressurization modification HCM50259A during production.

(d) Subject

Air Transport Association (ATA) of America Code 21: Air Conditioning.

(e) Reason

This AD was prompted by reports of cracking and surface anomalies of the fuselage skin at the water trap/air dryer unit of the forward discharge valve due to corrosion. We are issuing this AD to detect and correct bulging, surface anomalies, and cracking that could propagate towards the forward discharge valve outlet, which could result in the failure of the fuselage skin, leading to a possible sudden loss of cabin pressure.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Detailed Inspection of External Fuselage Skin

Within 12 months after the effective date of this AD, do a detailed inspection to check for bulging, surface anomalies, and cracking of the fuselage skin adjacent to the discharge valve outlets (one frame fore and aft, one stringer above and below), in accordance with the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Inspection Service Bulletin ISB.21-162, Revision 1, dated September 16, 2010. Repeat the inspection thereafter at intervals not to exceed 24 months.

(1) If any bulging, surface anomalies, or cracking of the fuselage skin is found to be within the criteria defined in Subject 53-00-00, “Fuselage, General – Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series

/AVRO 146-RJ Series Structural Repair Manual for Series 100-200, Revision 66, dated October 15, 2011 (for Model 146-100A and -200A, and Avro 146-RJ70A and 146-RJ85A airplanes); or Subject 53-00-00, “Fuselage, General – Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 300, Revision 44, dated October 15, 2011 (for Model 146-300A and Avro 146-RJ100A airplanes): Before further flight, repair the damage, in accordance with the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Inspection Service Bulletin ISB.21-162, Revision 1, dated September 16, 2010.

(2) If any bulging, surface anomalies, or cracking of the fuselage skin is found exceeding the criteria defined in Subject 53-00-00, “Fuselage, General – Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 100-200, Revision 66, dated October 15, 2011 (for Model 146-100A and -200A, and Avro 146-RJ70A and 146-RJ85A airplanes); or Subject 53-00-00, “Fuselage, General – Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 300, Revision 44, dated October 15, 2011 (for Model 146-300A and Avro 146-RJ100A airplanes): Before further flight, repair the damage according to a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, or European Aviation Safety Agency (EASA) or its delegated agent.

(h) Application of Sealant

Within 24 months after the effective date of this AD, unless a repair has already been accomplished in accordance with paragraph (g) of this AD: Apply additional PR1422A-2 or PR1764B-2 edge sealant between the water trap/air dryer and the fuselage skin, in accordance with the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Inspection Service Bulletin ISB.21-162, Revision 1, dated September 16, 2010. Application of additional sealant does not constitute terminating action for the repetitive detailed inspections required by paragraph (g) of this AD. Accomplishment of a repair as required by paragraph (g) of this AD terminates the repetitive inspection requirements of this AD.

(i) Credit for Previous Actions

(1) This paragraph provides credit for inspections and sealant applications required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using BAE SYSTEMS (OPERATIONS) LIMITED Inspection Service Bulletin ISB.21-162, dated June 7, 2010.

(2) This paragraph provides credit for using criteria defined in the following subject of the applicable structural repair manual, as required by paragraphs (g)(1) and (g)(2) of this AD, if that criteria was used before the effective date of this AD using Subject 53-00-00, “Fuselage, General – Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 100-200, Revision 65, dated September 15, 2010 (for Model 146-100A and -200A, and Avro 146-RJ70A and 146-RJ85A airplanes); or Subject 53-00-00, “Fuselage, General – Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS

BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 300, Revision 43, dated September 15, 2010 (for Model 146-300A and Avro 146-RJ100A airplanes).

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue S.W., Renton, Washington 98057-3356; phone 425-227-1175; fax 425-227-1149. Information may be e-mailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(k) Related Information

Refer to MCAI EASA Airworthiness Directive 2011-0099, dated May 26, 2011, and the service information identified in paragraphs (k)(1), (k)(2), and (k)(3) of this AD, for related information.

(1) BAE SYSTEMS (OPERATIONS) LIMITED Inspection Service Bulletin ISB.21-162, Revision 1, dated September 16, 2010.

(2) Subject 53-00-00, "Fuselage, General – Description," of Chapter 53, "Fuselage," of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 100-200, Revision 66, dated October 15, 2011.

(3) Subject 53-00-00, "Fuselage, General – Description," of Chapter 53, "Fuselage," of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 300, Revision 44, dated October 15, 2011.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise.

(i) BAE SYSTEMS (OPERATIONS) LIMITED Inspection Service Bulletin ISB.21-162, Revision 1, dated September 16, 2010.

(ii) Subject 53-00-00, "Fuselage, General – Description," of Chapter 53, "Fuselage," of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 100-200, Revision 66, dated October 15, 2011. The revision level of this document is specified only in the Letter of Transmittal.

(iii) Subject 53-00-00, “Fuselage, General – Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 300, Revision 44, dated October 15, 2011. The revision level of this document is specified only in the Letter of Transmittal.

(3) For service information identified in this AD, contact BAE SYSTEMS (OPERATIONS) LIMITED, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; e-mail RApublications@baesystems.com; Internet http://www.baesystems.com/Businesses/RegionalAircraft/index.htm.

(4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on July 31, 2012.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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